

Q/A for Congressman Hoyer's Job Opportunities Between our Shores (JOBS) Act

What is advanced manufacturing?

Advanced manufacturing focuses on improvements in processes to increase productivity in manufacturing. The National Council for Advanced Manufacturing says advanced manufacturing “[uses] new methods to produce newer or better products.” The Department of Labor defines advanced manufacturing as “implementing process improvements, increasing quality controls, and installing advanced robotics and other intelligent production systems” to improve productivity in manufacturing.

Is advanced manufacturing a growing sector for investment?

Yes. Analysis by the Federal Reserve Bank of New York found that while American manufacturing has lost nearly 5 million jobs over the past three decades, in that same period “employment in high-skill manufacturing occupations rose 37 percent, an increase of roughly 1.2 million jobs.” Last decade, the Department of Labor recognized advanced manufacturing as one of fourteen high-growth industries. The Department funded a number of demonstration projects under its High Growth Job Training and Community-Based Job Training Initiatives to support community college partnerships with high-growth sectors. By the end of the program, fifty-four grants (or 17 percent of grants awarded from both initiatives) were awarded for advanced manufacturing partnerships. This number was disproportionate given how many high-growth industries were recognized by DOL. The Department reports for every dollar spent through these initiatives, local communities provided an additional 50 cents in investment toward building sustainable manufacturing workforce partnerships.

Has educational attainment increased in the manufacturing sector?

Yes. According to a 2008 report by the Manufacturing Institute, “Between 2000 and 2008, the share of the total manufacturing workforce with bachelor’s degrees increased from 16 percent to nearly 19 percent;” the share of graduate and professional degrees increased from 6 percent to nearly 8 percent, while the share of the workforce with less than a high school diploma decreased from 14 percent to 12 percent.

Why is educational attainment important in advanced manufacturing?

What sets advanced manufacturing apart from traditional manufacturing is the necessity of skills to work with “increasingly sophisticated technologies,” according to the Manufacturing Institute. Department of Labor analysis found advanced manufacturing firms need employees who

“We need to ensure that we continue to train workers with the right skills to keep pace with the increasingly technical demands of the productivity-oriented manufacturing sector. By creating more pathways for post-secondary education, aligning education with industry-recognized skills/credentials... the U.S. can create the kind of manufacturing workforce that will facilitate ever-needed product and process innovations in an evolving global business climate.”

The Manufacturing Institute's
Facts About Modern Manufacturing, 8th Edition

can quickly adapt to innovations in technology, and workers who have basic competencies provided by K-12 education, post-secondary training or degree attainment, and “soft” skills which will help them perform as part of a team. Investments in post-secondary training and education can provide greater assurances to advanced manufacturing firms of the continued availability of skilled and adaptable workers to meet their growing needs. And, with higher educational attainment comes higher wages, as well.

“Today’s advanced manufacturing requires a technical workforce with math and science skills. The new paradigm of lean manufacturing requires production workers with increased numeracy, team building, and problem solving abilities. The human capital challenge must be met as part of an effective innovation policy or the return on an otherwise competitive level of R&D investment will be weak.”

Facts About Modern Manufacturing, 8th Edition

What would the JOBS Act do?

The purpose of this legislation is to build upon the success of the initial investment made by the Department of Labor to support advanced manufacturing partnerships over the past several years. The bill would amend Sec. 171 of the Workforce Investment Act to continue providing targeted investments to partnerships of community/technical colleges, local workforce investment boards and advanced manufacturing firms to design and implement education and training programs for current and prospective workers. And while well-funded, the current TAA Community College Program provides no assurance for investments in advanced manufacturing. However, this legislation intends to support dislocated workers and unemployed individuals whose communities may or may not be affected by trade adjustment with a specific emphasis on advanced manufacturing.

Summary of the Legislation

Eligible partnerships must describe basic information about their capacity to carry out the objective of the program, which is to target skill and competency development in communities with expected growth in advanced manufacturing, while prioritizing incumbent workers (those already in the workforce in need of retraining), dislocated workers, and unemployed individuals. Eligible partnerships must also provide a description of how the local economy would benefit, including evidence of the growth of advanced manufacturing, the potential for additional job growth with such an investment, and the exposure of incumbent or dislocated workers to new advanced manufacturing skill sets. Eligible partnerships must also describe how they will work with the local or state workforce investment board and other local economic development officials to strengthen the availability of advanced manufacturing job opportunities. Of the many goals of the program, one significant goal is to align training opportunities to advanced manufacturing firms’ needs for adaptability in the training of incumbent workers. To assess the success of these partnerships, the Secretary will therefore not only look at the number of individuals who received employer- or industry-recognized credentials or basic skills, but the number of incumbent workers whose training met employers’ worker-skill needs to enhance their operations.